Remarks

In the official action, the Examiner asserts that claims 1-19, 21-34 and 53-56 are drawn to a different invention than are claims 20, 35-52 thereby requiring restriction.

The Applicant hereby confirms the provisional election, made by Richard Berg on July 14, 2004, for the invention of Group I. However, since it was a <u>provisional</u> election, it is made, of course, with traverse.

Initially, why does the Examiner assert that claims 40-52 are "drawn toward a method of optically relaying data" when they are apparatus claims? Note that claim 40 recites "An optical apparatus comprising." How can claims 40-52 possibly be characterized as being method claims? Moreover, since they are apparatus claims, that fact utterly undercuts the Examiner's rationale for making the restrictions requirement.

The Examiner refers to MPEP 806.05(e) as setting forth the standards for when restriction is appropriate. Then the Examiner goes on to justify the restriction requirement by stating "in this case a novel fabrication technique." However, the method claims in this application have nothing to do with a fabrication technique. Claim 20 is directed to a method of addressing an array of APF MQW pixels having first and second sets of electrodes and claim 35 is directed to a method of optically repeating or relaying data while claim 38 is directed to a method of optically relaying data. Thus, the Examiner's rationale "in this case a novel fabrication technique" does not support the restriction requirement imposed by the Examiner upon Applicant. Additionally, it is noted that the Examiner must either show that the process as claimed can be practiced by another materially different apparatus or the apparatus as claimed can be used to practice another and materially different process. This the Examiner has not done and therefore the restriction requirement is improper. The Examiner is respectfully requested to withdraw it.

If the Examiner is unwilling to withdraw the restrictions requirement, then the Applicant's attorney respectfully requests an interview with the Examiner and the

Examiner's SPE before the issuance of the next official communication.

The Examiner rejects claims 1-7, 10, 13-15, 18, 19, 21-27, 31, 53 and 54 under 35 U.S.C. 102 as being allegedly anticipated by US Patent No. 6,154,299 to Gilbreath. This grounds for rejection is respectfully traversed.

With respect to claim 1, the Examiner refers the Applicant to Figures 3 and 4 of Gilbreath. Claim 1 recites, inter alia, "a two-dimensional array of modulator and/or detector pixels embedded in a flexible or deformable body." Where is this shown in Figures 3 and 4 of Gilbreath? The Examiner directs the Applicant's attention to reference numeral 100 of Gilbreath, but reference numeral 100 refers to a single MQW modulator. Where is the recited two-dimensional array in those Figures? If the Examiner is relying upon the segmentation discussion at lines 42-55 of column 4, where is there any discussion regarding embedding "in a flexible or deformable body" as required by claim 1?

If the Examiner turns to Figure 7 of Gilbreath, the Examiner will note that the Figure description for that Figure indicates that it illustrates an "assembly including an array of MQW-retroreflector pairs according to the present invention." There is a relatively meager description of this device, which comprises only one sentence that bridges columns 5 and 6 of the Gilbreath Patent. At least, with respect to Figure 7, Gilbreath uses the word "array". However, it is submitted that, for whatever Gilbreath shows in Figure 7, Gilbreath is not an enabling disclosure since it does not teach a person of ordinary skill in the art how to make or use the device shown thereat.

Since the Examiner rejected claim 1 under 35 U.S.C. 102, that means that Gilbreath is supposed to teach each and every limitation of claim 1. Since Gilbreath fails to show a "two-dimensional array of modulator and/or detector pixels embedded in a flexible or deformable body", this rejection must fail.

Claim 1 also recites an optical arrangement for directing an incoming optical beam from an optical transmitter "onto a selected one or ones of said modulator and/or detector

pixels in said array." Since the only place that Gilbreath apparently shows an array is Figure 7, and since the application appears to be silent with respect to how Figure 7 is to be used, where is there any teaching of an optical arrangement that meets the language recited immediately above? If the Examiner is relying on the discussion at lines 42-55 of column 4, note the discussion about the sub-devices all being driven with the same modulation signal at line 46. Obviously, no selection is occurring. Since this is a rejection under 35 U.S.C. 102, Gilbreath is supposed to meet each and every limitation of claim 1 in order for the rejection to be proper. This rejection fails on multiple grounds.

Turning now to claim 14, that claim recites, inter alia, "a two-dimensional array of modulator and/or detector pixels disposed in a predetermined configuration" and "an optical arrangement for detecting a first incoming optical beam from a first optical transmitter onto a first selected one or ones of said modulator and/or detector pixels in said array and for directing a second incoming optical beam from a second optical transmitter onto a second selected one or ones of said modulator and/or detector pixels in said array..." Where does Gilbreath possibly meet the first optical transmitter and second optical transmitter limitations of claim 14? It is noted, that in the official action, other than quoting the claim, the Examiner does not point out where Gilbreath is supposed to meet the quoted limitations. With all due respect to the Examiner, the Examiner is reminded that it is his obligation to point out specifically and succinctly exactly how a prior art reference allegedly anticipates or renders obvious a claim. Please see 37 CFR 1.104(c)(2).

Claim 18 also recites, among other things, "a first optical transmitter" and "a second optical transmitter." How is claim 18 possibly anticipated by Gilbreath?

Turning to claim 21, where does Gilbreath disclose "a two-dimensional array or modulator and/or detector pixels arranged in a hemispherical configuration" as claimed? The Examiner points to Figures 3 and 4 of Gilbreath as meeting this limitation. Where is there shown a hemispherical configuration in those Figures? Where is there shown "an optical arrangement for directing an incoming optical beam from an optical transmitter onto a selected one or ones of said modulator and/or detector pixels in said

array"?

Moving on, briefly, to the dependent claim 26, claim 26 recites that the hemispherical configuration "is defined by a flexible or deformable body." Where is that shown or described in Gilbreath? The Examiner refers the Applicant to column 3, lines 1-3 of Gilbreath. However, at that point, there is no discussion whatsoever of a flexible or deformable body as claimed in claim 26 or that the flexible or deformable body is a "thermosetting plastic" as recited in claim 27. Why are those claims rejected as allegedly being anticipated by Gilbreath? The Examiner asserts that a flexible or deformable body is disposed in a hemispherical configuration pointing to column 5, lines 22-29 of Gilbreath. However, at that point, there is discussion of a hemispherical lens and a hemispherical mirror. Where is there any teaching, whatsoever in Gilbreath, that the lenses and mirrors shown in Figure 6 thereof are "flexible or deformable"? Moreover, it is noted that in Figure 6, those hemispherical elements are spaced from the multiple quantum well 400. If element 400 allegedly meets the recitation "a two-dimensional array of modulator and/or detector pixels" as recited in claim 21, how are they possibly arranged in a "hemispherical configuration" when only the mirror and the lens are shown with such configuration and not any array of modulator and/or detector pixels?

The next independent apparatus claim in this application is claim 40, which has not been rejected on prior art grounds. The Examiner is respectfully requested to allow claim 40 and the claims which depend therefrom.

Turning to claim 53, it is not understood where Gilbreath teaches "a control apparatus for individually controlling the individually addressable modulator and/or detector pixels to (i) reflect light which is modulated and reflected by said pixels when the optical beam is from an authorized or friendly source and (ii) inhibit optical reflection by the individually addressable modulator and/or detector pixels when the optical beam is not from an authorized or friendly source." The Examiner points to column 4, lines 6-65 as allegedly meeting this limitation. With respect to segmenting the disclosed device into smaller subdevices, Gilbreath specifically teaches that these "subdevices can all be driven with the same modulation signal." Well, if that is done, then how are the pixels

possibly controlled to meet the limitation quoted above? If they are all driven with the same modulation signal, then it would seem that they all react the same way and thus not be able to differentiate between one source and another source.

Turning briefly to the rejection under 35 U.S.C. 103, the Examiner rejects claims 55 and 56 based upon Gilbreath in view of Pepper (US 2004/0075880). On what basis does the Examiner consider Pepper to be prior art to this application? It is submitted that Pepper is not prior art to this application, and therefore that rejection must fail.

The Examiner is thanked for the indication of allowable subject matter in claims 8, 9, 11, 12, 16, 17, 28-30, 32-34, but it is believed that all the claims pending in this application are patentable over the prior art.

Reconsideration of this application is respectfully requested.

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The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136 (a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this correspondence is being deposited with the United States Post Office with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents

POB 1450, Alexandria, VA 22313-1450 on

October 27, 2004

(Date of Deposit)

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(Name of Person Signing)

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October 27, 2004

(Date)

Respectfully submitted,

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